

DP 300566
(DEP-0048)

IN THE CLAIMS

Please cancel Claims 33 - 35 without prejudice, add Claims 36 and 37, and amend Claims 1, 2, 6, 9, 16, 20, 21, and 27 as follows in re-written "clean" format:

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Claim 1. (Amended/Clean) A method of manufacturing zirconia-alumina body, comprising:
mixing zirconia, yttria, and alumina with at least one solvent to form a mixture;
drying said mixture to form a dried mixture;
disposing said dried mixture adjacent to an unfired alumina body; and
co-firing said dried mixture and said unfired alumina body to form a zirconia-alumina body, wherein said zirconia-alumina body comprises about 1 weight% to about 45 weight% monoclinic phase zirconia, based upon the total weight of the zirconia.

Claim 2. (Amended/Clean) The method of manufacturing zirconia-alumina body of Claim 1, further comprising mixing at least one dispersant into the mixture, and wherein the zirconia-alumina body comprises about 15 weight% to about 30 weight% monoclinic phase zirconia with the balance cubic and tetragonal phases, based upon the total weight of the zirconia.

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Claim 6. (Amended/Clean) The method of manufacturing zirconia-alumina body of Claim 1, wherein the zirconia-alumina body comprises about 18 weight% to about 25 weight% monoclinic phase zirconia with the balance cubic and tetragonal phases, based upon the total weight of the zirconia.

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Claim 9. (Amended/Clean) The method of manufacturing zirconia-alumina body of Claim 1, wherein said mixture and said alumina body have a sintering mismatch of less than about 5%.

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Claim 16. (Amended/Clean) A method of manufacturing a sensor, comprising:

mixing zirconia, yttria, and alumina with at least one solvent to form a mixture;

drying said mixture to form an unfired zirconia body;

disposing an electrode on each side of said unfired zirconia body;

connecting each electrode to an electrical lead;

disposing said unfired zirconia body adjacent to an unfired alumina body to form an unfired zirconia-alumina body, wherein one of said electrodes is disposed between said zirconia body and said alumina body; and

co-firing said unfired zirconia-alumina body to form a co-fired zirconia-alumina body comprising about 1 weight% to about 45 weight% monoclinic phase zirconia, based upon the total weight of the zirconia.

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Claim 20. (Amended/Clean) The method of manufacturing zirconia-alumina body of Claim 16, wherein the zirconia-alumina body comprises about 15 weight% to about 30 weight% monoclinic phase zirconia with the balance cubic and tetragonal phases, based upon the total weight of the zirconia.

Claim 21. (Amended/Clean) The method of manufacturing zirconia-alumina body of Claim 16, wherein the zirconia-alumina body comprises about 18 weight% to about 25 weight% monoclinic phase zirconia with the balance cubic and tetragonal phases, based upon the total weight of the zirconia.

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Claim 27. (Amended/Clean) The method of manufacturing zirconia-alumina body of Claim 16, wherein said mixture and said alumina body have a sintering mismatch of less than about 5%.

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Claim 36. (New) The method of Claim 1, wherein said zirconia has a total impurity amount of less than about 1,000 parts per million.

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Claim 37. (New) The method of Claim 16, wherein said zirconia has a total impurity amount of less than about 1,000 parts per million.